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Correa, County of Orange

Riverside County Transportation Commission:
Robin Lowe, Hemet

Ventura County Transportation Commission:
Keith Millhouse, Moorpark

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559-12/28/05

MEETING OF THE

PLANS & PROGRAMS TECHNICAL ADVISORY COMMITTEE

**Thursday, March 16, 2006
10:00 a.m. – 12:00 p.m.**

**SCAG Offices
818 W. 7th Street, 12th Floor
San Bernardino Conference Room
Los Angeles, CA 90017
(213) 236-1800**

Video Conference Location

SCAG Inland Empire Office
3600 Lime Street, Suite 216
Riverside, CA 92501
(951) 784-1513

Agendas and handouts are provided at www.scag.ca.gov/rtpac. If members of the public wish to review the attachments or have any questions on any of the agenda items, please contact Philip Law at (213) 236-1841 or law@scag.ca.gov.

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DOCS#

PLANS & PROGRAMS TECHNICAL ADVISORY COMMITTEE

AGENDA

ITEM	PAGE #
1.0 <u>Call to Order and Introductions</u>	Chair Doug Kim, LACMTA
2.0 <u>Public Comment Period</u>	
Members of the public desiring to speak on an agenda item or items not on the agenda, but within the purview of this committee, must fill out a speaker's card prior to speaking and submit it to staff before the meeting is called to order. Comments will be limited to three minutes. The Chair may limit the total time for comments to twenty (20) minutes.	
3.0 <u>Consent Calendar</u>	
3.1 <u>Approval of Meeting Minutes from February 16, 2006</u>	
<i>Attachment</i>	1
4.0 <u>Action Items</u>	
4.1 <u>RTP Growth Forecast Assumptions</u>	Frank Wen, SCAG
<i>Attachment provided separately</i>	
<i>Recommended Action: Approve the Regional Growth Forecast Methodology and Assumptions</i>	
5.0 <u>Discussion Items</u>	
5.1 <u>2005 State of the Region</u>	Ping Chang, SCAG
<hr/>	
6.0 <u>Staff Report</u>	
7.0 <u>Comment Period</u>	
Any Committee member, member of the public, or staff desiring to comment on items not covered on the agenda may do so at this time. Comments should be limited to three minutes.	
8.0 <u>Next Meeting Date & Adjournment</u>	
The next meeting date is <u>Thursday, April 20, 10 a.m. to 12:00 p.m.</u>	



PLANS & PROGRAMS TECHNICAL ADVISORY COMMITTEE

MINUTES for February 16, 2005

The following minutes are a summary of the Plans & Programs Technical Advisory Committee (TAC) meeting. Audio cassette tapes of the actual meeting are available for listening at SCAG's office.

1.0 Call to Order and Introductions

Mr. Doug Kim, LACMTA, called the meeting to order. Introductions were made.

2.0 Public Comment Period

There were no comments.

3.0 Consent Calendar

3.1 Approval of Meeting Minutes from January 19, 2006

The meeting minutes were approved.

4.0 Discussion Items

4.1 RTP 4-Year Cycle and 2035 Horizon

Mr. Naresh Amatya, SCAG, stated that the Regional Council has adopted the RTP 4-year cycle (adoption in 2008). There is an issue with this approach regarding the fourth year of the plan cycle—after July 1, 2007, RTP and RTIP adoption actions (including amendments) may not be approved by the federal agencies unless they comply with all SAFETEA-LU planning requirements. Discussions with federal representatives in Washington are on-going, and there may be the potential for establishing thresholds for amendments that would be allowed to advance. SCAG is also pursuing a legislative remedy. SCAG staff are also considering advancing the adoption of the next RTP from April 2008 to possibly December 2007 in order to minimize the period during which SCAG may not be allowed to process amendments.

Mr. Ty Schuiling, SANBAG, asked about the implications of the AQMP schedule for the RTP. Mr. Amatya stated that this has been one of the key considerations in developing the RTP schedule. Adoption of the RTP in April 2008 would not have any issues relative to EPA's action on the emission budgets. However, moving the adoption to late 2007 could cause concern if EPA has not yet acted. Mr. Schuiling noted that there would also be a new PM 2.5 budget.

Mr. Don Rhodes, SCAG, added that staff has been working with Mr. Graham Hill of the House Transportation & Infrastructure Committee, who helped set up meetings with US DOT officials to address the RTP schedule issue. SCAG is also working with Atlanta's MPO to coordinate efforts. Also, this issue will be discussed at the next CEOs meeting.

Regarding the plan horizon, Mr. Amatya stated that the horizon has been moved to 2035 in order to maintain a minimum 20-year horizon for the life of the plan, which is



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2008 to 2012. This would avoid issues regarding the horizon if SCAG was in the position of amending the plan at some point after 2011.

Mr. Doug Kim, MTA, stated that a couple of the commissions have already begun their countywide planning updates and have been working with a 2030 horizon, so they may not have input for SCAG for the time frame after 2030. Mr. Amatya noted that it is preferable to adjust the horizon now at the start of the process rather than waiting until some future point to revise the horizon. Mr. Ty Schuiling, SANBAG, stated that the Measure I extension expenditure plan extends even further, to 2040. He added that it is important to develop interim milestones in the plan. Mr. Richard Marcus, OCTA, stated that OCTA has financial projections to 2041, but the modeling for their long range plan covers up to 2030. Mr. Philip Law, SCAG, stated that both OCTA and MTA have unconstrained project lists from which to draw projects for the 2030-2035 time frame.

4.2 RTP Schedule of Work

Mr. Tarek Hatata, System Metrics, presented this item. A handout was provided. He introduced the RTP consultant team, which will assist SCAG not only in the general RTP development, but also specifically in the areas of financial forecasting, innovative finance strategies, and goods movement strategies. Several team members are leading or participating in critical related studies such as the Multi-County Goods Movement Action Plan and the High Speed Rail Feasibility Study, providing important linkages for the RTP process. The RTP team will also work closely with the consultant team for the Compass 2% strategy.

Next, Mr. Hatata provided a framework of the issues that will be brought forward to the TAC over the next four months. These include a review of goals, policies, and performance measures; preliminary research findings on innovative financing; the financial model design; updates on the goods movement, high speed rail, and land use efforts; review of data from Performance Measurement System (PeMS), Highway Congestion Monitoring, and National Transit Database; and transportation system hot spot identification and the comparison of these hot spots to the 2004 RTP projects.

Mr. Ty Schuiling, SANBAG, noted the poor TAC attendance, particularly among subregions. Given the upcoming proposed topics, it is important that they come and participate. The information presented today should be given to the Subregional Coordinators Group so they can improve their attendance at the TAC. Ms. Gail Shiimoto-Lohr, OCCOG, stated that it would be helpful to provide agenda attachments before the day of the meeting, if possible, to allow for more in-depth discussion.

Ms. Paula McHargue, LAWA, stated that the TAC should discuss the ground access studies that SCAG has completed or is working on, and how they are integrated or prioritized into the overall RTP project list.

Lastly, Mr. Hatata stated the consultant team will soon begin providing updates on other committee and task force activities, and asked the TAC for input on changes to the format of the updates, if any.



MINUTES for February 16, 2005

4.3 Standing Items

4.3.1 Growth Forecast

Report on Feb. 15th meeting on subregional input

Mr. Frank Wen, SCAG, presented this item. The February 15 meeting was a continuation of SCAG's request issued last September for input from the subregional agencies. About forty individuals attended the meeting and several made presentations. The information received at this meeting will be incorporated by staff into a technical baseline projection. On March 1, SCAG staff will present the technical projection to the panel of experts for their review and comments. The panel was in attendance at the February 15 meeting.

At the March 1 meeting, SCAG staff will present the forecast methodology, model, assumptions, and output at both the regional and county levels. Staff is expecting the panel of experts to provide a perspective on the range of future growth by different variables. Taking this information, SCAG staff will develop a regional technical baseline projection by the end of March. The next step would be to disaggregate the regional, subregional, and county numbers down to the TAZ level. SCAG's consultants will bring that information to each subregion and city to conduct the small area accuracy check and at the same time refine/review the small area allocation to reflect the growth visioning policy forecast. The goal is to complete both the technical and policy forecasts by the end of this year.

Ms. Gail Shiimoto-Lohr, OCCOG, asked what the role of the TAC would be in the process just outlined. Mr. Wen stated that the methodology has been presented to the TAC previously, and the expert panel will be provided this methodology with updated data. All interested stakeholders are invited to attend the March 1 meeting. Summaries of both the subregional input and the recommendations from the panel of experts will be presented to the TAC.

Mr. Ty Schuiling, SANBAG, stated that in the last forecasting cycle, there was a top-down effort to develop regional demographic assumptions that had the strength of consensus that led to regional totals. The regional population and employment totals had general agreement among the entire region. As soon as we got to the disaggregation, we got into trouble. It is this piece which needs to be extremely transparent and participative on the part of all the subregions and local jurisdictions with concerns.

Mr. Schuiling stated that, in developing the regional totals, it is essential that a consistent set of assumptions should be used and consensus should be achieved before we get into the issue of distribution. One reason for this concern is apparent when we look at the components of growth for the four largest counties. Riverside has as its largest component in-migration from nearby counties. In San Bernardino that is the second largest component. In Orange, one of the major considerations is how many people they will export.



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None of these counties or their subregions can prepare a credible growth forecast independent of full consideration of the issues in other counties.

Mr. Wen stated that staff and the panel of experts will consider and evaluate the differences between the staff's technical project and the input from the subregions. Mr. Doug Kim, MTA, stated that the TAC should be presented the preliminary growth forecast and assumptions before it goes to the panel of experts. Ms. Tracy Sato, City of Anaheim, asked whether the panel was simply advisory to SCAG, or whether they would have any authority over the approval/disapproval of the process. She also asked how the information provided by the subregions would be used to influence the projection, if at all. Mr. Wen stated that the panel is expected to provide an independent opinion and suggest a reasonable range for the forecast or any variables. They are not expected to prescribe any specific number. Ms. Shiimoto-Lohr stated that the process for developing a regional forecast should be separated from the process of disaggregating the regional forecast to the small area level. She also asked that the presentation of the growth numbers to the panel of experts be convened at the next TAC meeting.

Mr. Hasan Ikhata, SCAG, stated that only the Regional Council makes decisions; the staff and committees make recommendations to the Regional Council. The current process will accomplish what the TAC is asking for. Staff is using the same methodology and assumptions from the 2004 RTP forecast, with updated data. Staff will take the input from the panel of experts and further refine the forecast, and then the data and all of the assumptions will be brought to the TAC for their review. Staff will devote a special meeting of the TAC to discuss the methodology, assumptions, and totals. If necessary, the panel of experts could potentially be reconvened at a later date.

Ms. Sato asked for two special meetings of the TAC, one (before the numbers are released) to discuss the panel of experts' meeting, and another (after the numbers are released) to discuss the methodology and assumptions. Ms. Shiimoto-Lohr asked that staff forward the assumptions to the TAC for review before the meetings.

4.3.2 Highways and Arterials

There was no report.

4.3.3 TDM / Non-Motorized

RTP Non-Motorized Component – Draft Scope of Work

This item was postponed until the next meeting.

4.4 OCTA Draft Long Range Transportation Plan

This item was postponed until the next meeting.



PLANS & PROGRAMS TECHNICAL ADVISORY COMMITTEE

MINUTES for February 16, 2005

4.5 Governor's Infrastructure Bond Proposal

Mr. Don Rhodes, SCAG, presented this item. Mr. Rhodes stated that there are a series of bills and bond proposals in Sacramento. A handout was provided containing a description of the proposals and how they relate to SCAG adopted priorities. Mr. Rhodes reviewed the Perata/Torlakson proposal, SB1024, which seeks to provide \$10.275 billion for transportation, infill development/regional planning, clean air/safety, and water quality. The Governor's proposals were picked up by Senator Dutton (SB1165) and Assembly Member Oropeza (AB1838). These proposals include \$12 billion in general obligation bonds for specified transportation projects. A conference committee chaired by Senator Murray has been appointed to work out the final proposal in March. The bill would require a 2/3 vote of the legislature and will go to the voters in June or November.

4.6 Goals and Policies Update

Mr. Naresh Amatya, SCAG, noted that the TAC did review the goals, policies, and performance measures, but this was before SAFETEA-LU was adopted. Ms. Cheryl Stecher, Franklin Hill Group, briefly discussed potential issues that may have to be addressed in a goal or policy because of the new requirements of SAFETEA-LU. A handout was provided. The potential issues include security, non-motorized issues, environmental mitigation, statewide safety plan, and operations and management. Mr. Tarek Hatata, System Metrics, stated that what worked well last time was a minimalist approach. He suggested that if we do add any further goals or policies, security is the one item that should be addressed.

5.0 Staff Report

There was no staff report.

6.0 Comment Period

There were no comments.

7.0 Next Meeting Date & Adjournment

The next meeting date was announced as March 16, 2006, and the meeting was adjourned.

PLANS & PROGRAMS TECHNICAL ADVISORY COMMITTEE

MINUTES for February 16, 2005

Attendance

Name	Agency
Gerald Bare	Caltrans-District 7
Shefa Bhuiyan	Caltrans-District 8
Joanna Capelle	SCRRA
Deborah Diep	CDR, CSU Fullerton
Viviane Doche-Boulos	DB Consulting
Dana Gabbard	So. Calif. Transit Advocates
Tarek Hatata	System Metrics Group
Mark Herwick	County of Los Angeles
Jack Humphrey	Gateway Cities COG
Doug Kim	LACMTA
Richard Marcus	OCTA
Paula McHargue	LAWA
Tracy Sato	City of Anaheim
Eileen Schoetzow	LAWA
Ty Schuiling	SANBAG
Gail Shiimoto-Lohr	Orange County COG
Cheryl Stecher	Franklin Hill Group
Jim Stewart	SCCED
Tony Van Haagen	Caltrans-District 7
Carla Walecka	TCA
Diana Watson	Caltrans-District 7
<i>Via audio/video conference</i>	
Paul Fagan	Caltrans-District 8
Brian Kuhn	City of Palmdale
Kevin Viera	WRCOG

SCAG Staff

Sarah Adams
Naresh Amatya
Al Bowser
Hasan Ikhata
Philip Law
Rich Macias
Annie Nam
Don Rhodes
Alan Thompson
Teresa Wang
Frank Wen



MEMO

DATE: March 16, 2006

TO: Planning & Policy Department, Plans & Programs Technical Advisory Committee

FROM: Frank Wen, Acting Lead Regional Planner (213) 236-1854, wen@scag.ca.gov
Simon Choi, Senior Regional Planner (213) 236-1849, choi@scag.ca.gov
Hsi-Hwa Hu, Senior Regional Planner (213) 236-1834, hu@scag.ca.gov

SUBJECT: 2007/2008 RTP Baseline Forecasts: Methodology, Assumptions, and Draft Preliminary Results for the Region

SUMMARY:

This memo describes SCAG's methodology, process, and assumptions for the 2007/08 RTP baseline forecasts of population, household, and employment. As recommended by the TAC, staff will present at this meeting the *Draft Preliminary* forecasts of population, households, and employment for the region as a whole. The county/subregion distribution and associated assumptions and methodology will be presented to this Committee in the next meeting.

Definition of "Baseline Forecast"

The Baseline Forecast is a pure technical growth forecast *without* regional policy input. Specifically, the Baseline Forecast for 2007/08 RTP will be a result of updating the 2004 RTP no-project growth forecasts with the current demographic and economic trends, the latest land use changes, newly approved regionally significant projects, general plan or specific plan update, and/or zoning revisions since 2002.

BACKGROUND:

As reported to this Committee in January, the 2007/08 growth forecast process is moving forward again with the issuance of a notice to proceed to the consultant. The major milestones of the 2007/08 RTP Growth Forecasts for the remainder of this fiscal year include:

- January 2006: Working with consultant, convening the Panel of Experts to review and comment on 2007/08 RTP baseline growth forecast at regional/county/subregional level.
- February 2006: Counties/subregions are invited to present their forecasts and any pertinent growth issues to SCAG.
- March 2006: Panel of Experts review and comment on Draft 2007/08 RTP baseline growth forecasts at regional/county/subregional level.
- June 2006: Draft 2007/08 RTP baseline growth forecast at City/Small Area level.

In February, staff reported to this Committee the invited presentations—held on February 15 at SCAG—by counties, subregions, and local jurisdictions regarding their perspectives on growth and growth forecasts and pertinent growth issues.

SCAG FORECAST METHODOLOGY

SCAG population forecast is based on an economic-demographic (cohort component model) approach, considering trend extrapolation and other projections such as: the 2004 RTP No project Forecasts, DOF population projections (CA State & Counties), and US Census population projections (Nation & CA State). Once population forecast is determined, household forecast is derived from headship rates method.

The baseline employment forecast for the SCAG region utilizes a top down procedure—the shift/share methodology. Starting with a U.S. projection by industry sector, identify appropriate region share methodology for each of the NAICS-based sectors at national level. Once regional total jobs and jobs by NAICS sectors are determined, repeat the above exercises on county share of region jobs by sector, to get the county level job projections by industry sector. Finally, the employment forecasts will interact with the SCAG regional population forecast in order to ensure the balance between the job and population forecasts.

The following table shows the analysis about the performance of SCAG's regional forecasts. In general, SCAG's regional forecasts performed well compared to actual trends.

Forecasting Accuracy of SCAG Regional Population and Employment Projections: Mean Absolute Percentage Errors

	Projection Horizon			
	5 year	10 year	15 year	20 year
Population	4%	6%	12%	14%
Employment	8%	11%	14%	14%
Observations	8	7	5	4

Note: Mean Absolute Percentage Errors = Average of $|(\text{Projected} - \text{Estimated})| / \text{Estimated} * 100$

Sources:

SCAG90 (adopted in 1972)

D/E 2a (adopted in 1974)

SCAG, SCAG-76 growth forecast policy, Jan 1976 (adopted in December 1975)

SCAG, SCAG78 growth forecast policy (adopted in January 1979)

SCAG, SCAG82 growth forecast policy (adopted in October 1982)

SCAG, growth management plan (adopted in February 1989)

SCAG, growth forecast (adopted in June 1994)

SCAG, growth forecast (adopted in April 1998)

SCAG DEMOGRAPHIC FORECASTS – METHODOLOGY & ASSUMPTIONS

1. Population

- Top-down (region to county) & bottom-up (county to region)
- Methods
 - Economic-Demographic Methods
 - Cohort-component methods
- Other Projections
 - 2004 RTP No project Forecasts
 - DOF population projections (CA State & Counties)
 - US Census population projections (Nation & CA State)

1-1. Region

- Methods
 - Economic-Demographic Method
- Assumptions (compared to 2004 RTP No project forecast)
 - Baseline: annual average of growth between 1990 and 2005
 - Fertility: to be adjusted downward
 - Mortality: to be adjusted downward
 - International Migration: to be adjusted upward
 - Domestic Migration: to be determined to be consistent with employment projection

1-2. County

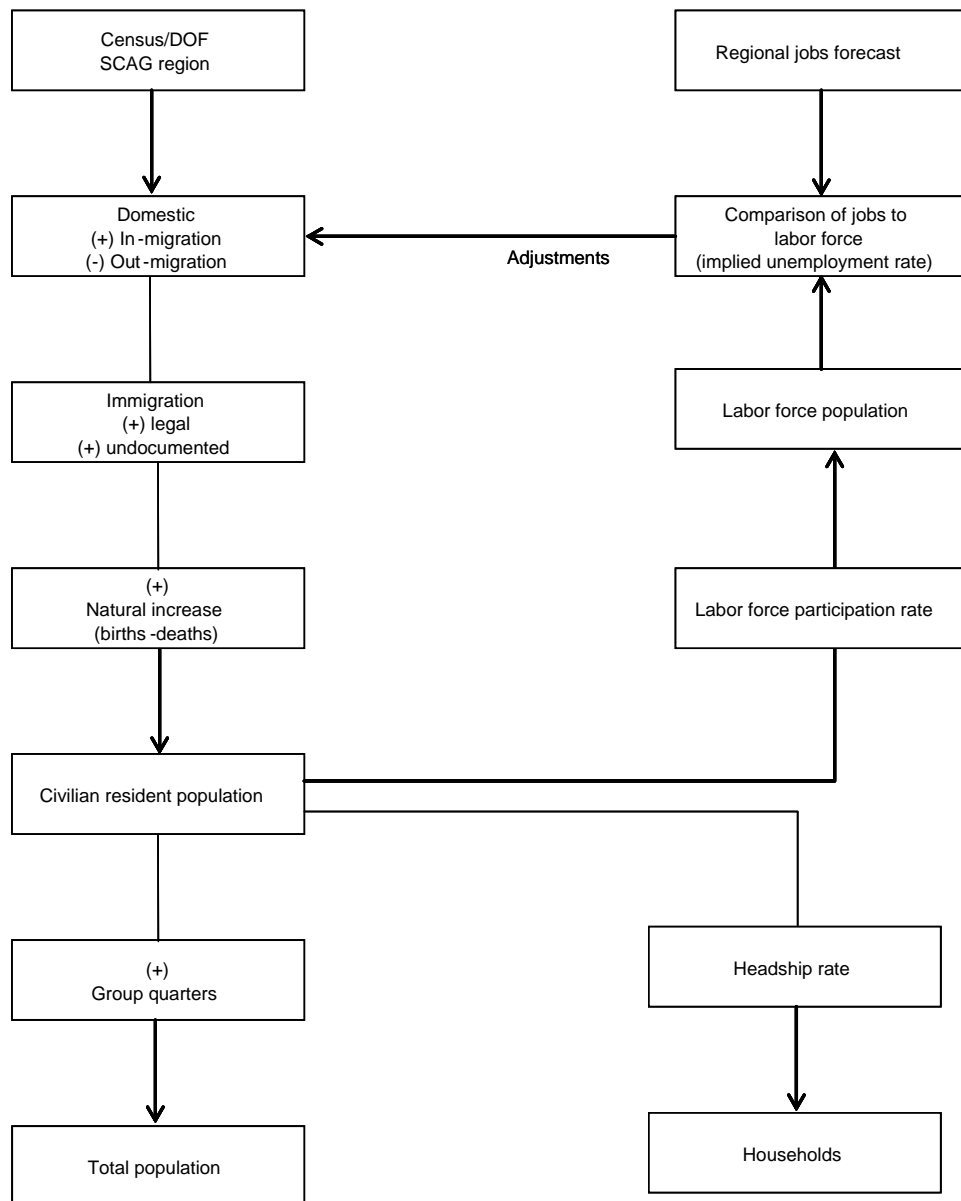
- Methods
 - Cohort Component Method
- Assumptions
 - Baseline: annual average of growth between 1990 and 2005
 - Fertility: to be adjusted downward
 - Mortality: to be adjusted downward
 - International Migration: to be adjusted upward and constrained by the regional assumption. Using the annual average of 1990-2005 international net migration.
 - Domestic Migration: to be adjusted by the regional assumption. The county share of the regional domestic migration is adjusted by using available information below.
- Available information to affect total population & domestic migration:
 - DOF population projections (CA State & Counties)
 - US Census population projections (Nation & CA State)
 - 2004 RTP No project Forecasts
 - 2006 subregional input

2. Households

2-1. County

- Methods
 - Headship Rates Method
- Assumptions
 - Historical trends of general household headship rates
 - Historical trends of female household headship rates
 - Assimilation assumption of Asian: reduce 50% difference from 2000 Census White headship rates
 - Assimilation assumption of Hispanics: reduce 25% difference from 2000 Census white headship rates
- Available information to affect households:
 - DOF population projections (CA State & Counties)
 - US Census population projections (Nation & CA State)
 - 2004 RTP No project Forecasts
 - 2006 subregional input

Regional Baseline Population/Household Forecasts and Linkages to Employment Forecasts



SUMMARY OF BASELINE EMPLOYMENT FORECAST - METHODOLOGIES AND ASSUMPTIONS

The baseline employment forecast for the SCAG region utilizes a top down procedure starting with a U.S. forecast, followed by SCAG region, and finally six SCAG counties. In this summary, jobs and employment, all measured by place of work, are used interchangeably. The employment forecast will interact with the SCAG regional population forecast.

1. National Projections

The first step is to project the U.S. labor force based on projections of total population and labor force participation rates. Total jobs are projected from total labor force, unemployment rate, and the ratio of total jobs to employed residents. Total jobs are then projected to a two-digit industry code (NAICS) based on historical trends of the industry shares of U.S. total jobs.

- Data Sources
 - The population projections from the Census projection to 2035
 - New BLS (Bureau of Labor Statistics) job projections to 2014
 - BLS labor force participation rates
- Key Assumptions
 - Labor force participation rate: based on 2014 BLS estimates, adjusting the rate for three old age cohorts (55-64, 65-74, and 75+) based on 2004-2014 trends.
 - Overall labor force participation rate:
 - 2010: 65.8%
 - 2015: 65.3%
 - 2020: 64.4%
 - 2025: 63.4%
 - 2030: 62.8%
 - 2035: 62.2%
 - Unemployment rate: 5.17% (1995-2005 average)
 - The ratio of total jobs to employed residents: 5.3% (BLS January, 2006 estimate)
- Formula: total employment estimate:

$$LF_{(A,Y)} = POP_{(A,Y)} \times LFPR_{(A,Y)}$$

$$LF_{(Y)} = \sum_A LF_{(A,Y)}$$

$$WKER_{(Y)} = LF_{(Y)} \times (1 - UE.Rate_{(Y)})$$

$$EMPL_{(Y)} = WKER_{(Y)} \times (1 + MJ.Rate_{(Y)})$$

Y: Years

A: Age Cohorts

LF: Labor Force

POP: Population

LFPR: Labor Force Participation Rate

WKER: Worker

UE.Rate: Unemployment Rate

EMPL: Employment

MJ.Rate: Multiple Job-holder Rate

2. SCAG Region Forecasts

Based on shift-share model, SCAG region jobs for each projecting year are forecasted based on U.S. total jobs and the job share of SCAG to U.S, by each of 2-digit NAICS industries.

- Data Sources
 - Total employment (1990-2014) for the U.S. from BLS
 - Historical wage and salary data from California EDD (Employment Development Department) between 1990-2005
 - SCAG estimates of self employment: 8.4% - based on 2000 PUMS (Public Use Microdata Samples)
 - U.S. total jobs for each forecast years (2015-2035)
- Short-term Projection to 2014: Shift-Share Model
 - By each of 20 NAICS industries
 - SCAG/US Employment Share in 2014 = 5.4%
 - Six Industry Projection Methods:
 1. Change in Share
 2. Increment (Share of Growth)
 3. Average Share
 4. Constant 2005 Share
 5. Pop Growth
 6. Simple regression
- Long-term Projection to 2035: shift-share based on total employment
- SCAG/US Employment Share in 2035 = 5.7%

3. County Forecasts

The historical data and methodology for county projection is the same as the procedure used for SCAG region projection. The projection utilizes a shift-share model for short-term projection by industries to 2014. A county to SCAG region growth share method is utilized for the long-term total employment projection (2015-2035). SCAG staff utilized the shift-share model to project 2014 employment for each of the six metropolitan areas of SCAG region: Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura.

MEMO

A new procedure was used this time to validate the appropriateness in using historical county shares as basis for projecting county share of jobs in the future. That is, identify key information with available projected value to assess whether past trend would replicate itself in the future. Staff analyzed the projected population by age and associated labor force by age at county level from both DOF and SCAG's cohort component model, and concluded that the positive contribution to job growth from growth in labor force are not valid for Orange and Los Angeles Counties after 2020. Thus future labor force information was used to further adjust the job share of these counties to SCAG region job after 2020.

SCAG Employment Forecasts Methodology and Process

